

THE COPROPHAGOUS LAMELLICORNS: A LIST OF SPECIES BELONGING TO THE GENERA *CIRCELLIUM* AND *SCELIAGES*, WITH NOTES ON ATEUCHIDÆ.

By JOHN W. SHIPP.

CIRCELLIUM, Latr.

Règne Anim. 2nd ed. iv. p. 535 (1829); Lacord., Gen. Coléop. iii. p. 70; Blanch., Cuv. Règne Anim. i. p. 292 (1854).

1. *bacchus*, Fb., Sp. Ins. i. p. 32; Mant. Ins. i. p. 17, n. 163; Herbst, Käfer, ii. p. 297, t. 19, f. 4; Lacord., Gen. Coléop. iii. p. 70; Oliv., Ent. Col. i. p. 153, pl. 17, f. 161; Blanch., Cuv. Règ. Anim. pl. 39, f. 4.

hemisphericus, Pallas, Icon. p. 20, t. B, f. 23.

var. *lyceus*, Westw., Brit. Cyclop. ii. p. 55; Reiche, Ann. Soc. Ent. Fr. 1842, p. 81; Lacord., Gen. des Col. iii. p. 70.

var. *waterhousei*, mihi.

Hab. 1, 3. — Cape Colony (widely distributed); Transvaal; Natal; Zambezi River; Matabili-land.

Only the above species has been described as belonging to this genus, which is easily distinguished from the other Ateuchidæ and Copriidæ by its hemispherical shape and its obtusely rounded clypeus. The var. *lyceus* was applied by Westwood to the large shining examples of *bacchus*, but as this is no distinguishing feature the name will probably have to become a synonym.

I have just had the opportunity of examining a series of insects captured in Matabili-land during the recent outbreak, and was struck with a few extremely diminutive forms of *bacchus*; and, as all of them are without exception under 16 lines, I take the opportunity of describing it as follows:—

bacchus var. *waterhousei*.—Size smaller, punctures on disc of thorax thick, coarser round base and margins, the posterior margin strongly sinuate. The striæ on the elytra deeper, and the basal portion of the elytra not crenulate as in *bacchus*, of a dull black colour, the hind tibiæ being furnished with a number of short spines very close together, and more numerous than in *bacchus*; the spines or teeth in one or two examples are obsolete, being evidently worn away by friction; the carinæ on the metasternum scarcely visible and almost obsolete; metasternum impunctate. L. c. 15 lines (16 = 1 in.). Hab. Matabili-land.

SCELIAGES, Westw.

Proc. Zool. Soc. v. 1837, p. 12; Westw., T. Z. S. ii. p. 159 (1838); Lacord., Gen. Coléop. iii. p. 71.

1. *adamastor*, Serville, Encycl. Méth. x. (1825), p. 351; Lacord., Gen. Coléop. Atl. t. 26, f. 2.
microcephalus, Boh., Ins. Caffr. ii. p. 174.
iopas, Westw., P. Z. S. v. (1837), p. 12; T. Z. S. ii. p. 159, t. 29, f. i. (1838).

1.—Cape Colony; C. Good Hope; Port Elizabeth; Natal; Caffraria.

2. *hippias*, Westw., P. E. S. (1844), p. 100; T. E. S. iv. (1847), p. 226, pl. 17, f. 2.

Hab. Cape Good Hope; Afr. Merid.

3. *gagates*, n. sp. Limpopo River.

I. Clypeal teeth rounded at extremity; size smaller.

A. Species larger; finely punctured (in some cases the punctures are almost obsolete); elytra with the striæ only faintly visible, depressed on disc, and more elongate . . . *adamastor*, Latr.

B. Species smaller; striæ of elytra deeper, elytra more convex and rounded, not so depressed on disc . . . *hippias*, Westw.

II. Clypeal teeth sharply pointed at apex; size larger; mesonotum with a deep longitudinal furrow . . . *gagates*, mihi.

gagates, mihi.—Black, shining. Head not elongate; teeth quite pointed, centre indentation quite triangular, the teeth being slightly reflexed. Head strongly punctured, except on disc, where it is quite smooth; strongly margined. Thorax strongly but finely punctured at sides, sparingly on disc, the punctures being thicker in the anterior angles; strongly emarginate. A faint longitudinal line can be plainly seen on disc. Anterior angles of thorax only slightly produced. Cilia at the base of the thorax rather long and deep brown. Elytra six-striated, the striæ being shallow but distinctly visible, rather strongly punctured; interstices flat, very sparingly and finely punctured. Elytra depressed on disc, base bicarinate. Anterior tibiæ very strongly toothed, all the teeth being sharply punctured and squamose at tips; the dentations very strongly serrated, the inner margins being unevenly serrated. Mesonotum not punctured, with a deep longitudinal furrow. L. c. 14 lines. Hab. Limpopo River.

adamastor, Latr.=*iopas*, Westw.—Black, shining. Clypeus elongate, depressed, six-lobed; the two centre teeth rounded, semicircular in shape, strongly emarginate. Head obsoletely margined, covered with small irregular punctures, except on the posterior portion, where the punctures are obsolete. Thorax smooth, obsoletely punctured, strongly margined, with the margin serrated, and with a testaceous cilia; upper margin smooth. Elytra furnished with six striæ, the striæ being almost obsolete,

and the elytra very faintly punctured; in a few cases the punctures are indiscernible. Apex of anterior tibiæ bent inwards at extremity and dilated, the teeth being slightly deflexed and serrated; the apical tooth rounded at extremity, not pointed. Mesonotum rather thickly punctured with very fine punctures, and with an obsolete longitudinal furrow, in some cases smooth, slightly concave or depressed towards posterior extremity. L. c. 10 to 12 lines.

Westwood described *iopas* as follows:—"Ater, nitidus, lævis; clypei dentibus intermediis, duobus obtusis subelevatis, capite antice punctatissimo; thorace lævissimo; elytris punctis nonnullis minutissimis, irregularibus, striisque sex longitudinalibus simplicibus fere obliteratis. L. c. 10 lines."

hippias, Westw.—The description of *hippias* is as follows:—"Niger, nitidus, capite sub lente tenuissime punctato; clypeo cornubus duobus intermediis porrectis; pronoto fere lævi, elytrisque sublævibus et minus nitidis, singulo striis sex vix discernendis; tibiis anticis haud in medio angulatis, extus 4-dentatis et serrulatis, metasterno antice producto et convexo-prominulo. L. c. 8 lin." Distinguished from *adamastor* by its less dilated form, as well as by the above-mentioned characters.

I confess that I fail to perceive any distinction between *adamastor* and *iopas*; a specimen in the Hope Coll. is labelled *adamastor*, but is only a trifle larger than those labelled *iopas*, and does not differ in any other particulars. *Hippias* is certainly a smaller and rounder insect than either of the two preceding species, with its form more convex. Lacordaire's figure of *adamastor* is evidently taken from Westwood's figure of *iopas*.

NOTES ON THE ATEUCHIDÆ.

In my paper on the above genus (Entom. xxvii. 257) I stated that no species of the genus had been found upon the island of Madagascar. Since then, on looking through the Nat. Hist. de Madagascar Ins. Col., I find that D'Herculeis has figured a species (pl. 17, f. 1), which is named *radama*. No description is as yet given, but the species does not seem to be identical with any of the East African examples. It is of a shining fuscous-brown colour, and sparingly punctured.

Herr Reitter (Verh. Vereines. Brunn, xxxi. pp. 160-163) gives the following as the synonymy of the Palæartic species:—*Sacer*, Linn. = *typhon*, Fisch. = *carinatus*, Gebl. = *europæus*, Mots. = *acuticollis*, Mots. = *affinis*, Brullé = *retusus*, Brullé. *Pius*, Ill. = *infirmus*, Fisch. = *monachus*, Fald. = *digitatus*, Mots. *Puncticollis* = *armeniacus*, Mem. = *hypocrita*, Dej. = *parumpunctatus*, Klug.

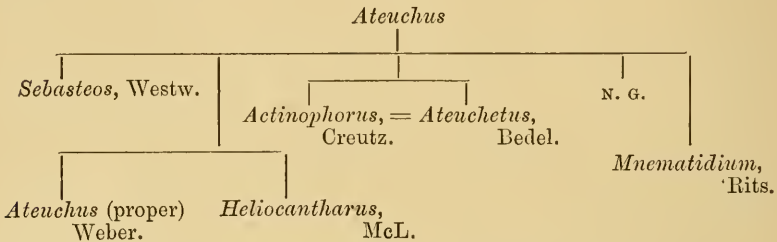
The genus *Mnematidium* was founded by Ritsema in 1889 for the name *Octodon*, Lansberge,* but Reitter uses Bedel's name

* See the Synonymy (Entom. xxvii. 314).

Neotodon for *multidentatus*, Klug. This is an error (Entom. xxvii. 314). Reitter, however, uses Ritsema's genus *Mnematomium* instead of *Mnematomium*, McLeay (*ritcheyi*, McLeay = *silenus*, Oliv.). This is also incorrect, as *Mnematomium multidentatum* is greatly dissimilar to *Mnematomium ritchei*, McL. *Mnematomium*, McLeay, and *Pachysoma*, Kirby; belong to the second division of my section Ateuchini, having the head and thorax very convex, more rounded, and shorter, and with the body wingless.

Bedel's subgenus *Ateuchetus* includes such forms as *cicatricosus*, Lucas, *puncticollis*, *semipunctatus*, and *variolosus*. These species agree with *Actinophorus*, Cr., as restricted by Erichson and others, although the genus *Actinophorus*, as given by Erichson, will bear dividing up into two distinct groups.

I append a diagram showing how the present genus *Ateuchus* may be divided:—



The following specimens are not mentioned in my list:—
ganglbaueri, Reitter, Verhandlung des Naturf. Vereines in Brunn, xxxi. (1892), p. 162. Hab. Persia.

laticollis, Linn.

var. *striolatus*, Reitter, *l. c.*, p. 163. Hab. Italy; Morocco.

var. *semilunatus*, Xamheu, Ann. Soc. Ent. Fr. vol. 63, Bulletin, p. ccxxvi. Hab. Pyrenees.

THE IRREGULAR DIARY OF AN ENTOMOLOGIST, 1832—1860.

SOME time ago Mr. W. T. F. M. Ingall most kindly sent me a type-written copy of some entomological memoranda made by his father, the late Mr. Thomas Ingall, formerly of the Bank of England, and one of the original members of the Entomological Club, and also of the Entomological Society of London.

As was the case with many of his contemporaries, Mr. Ingall did not confine himself to any particular order of insects, but collected anything that came in his way—Coleoptera, Diptera, Hymenoptera, Lepidoptera, and Neuroptera seem to have been equally interesting. Read by the light of our present knowledge